



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification <sup>6</sup> : <b>A61K 7/06, 7/13</b>	<b>A3</b>	(11) International Publication Number: <b>WO 99/13823</b> (43) International Publication Date: <b>25 March 1999 (25.03.99)</b>															
<p>(21) International Application Number: <b>PCT/IB98/01381</b></p> <p>(22) International Filing Date: <b>4 September 1998 (04.09.98)</b></p> <p>(30) Priority Data:</p> <table border="0"><tr><td>PCT/US97/16412</td><td>17 September 1997 (17.09.97)</td><td>US</td></tr><tr><td>PCT/US97/16617</td><td>17 September 1997 (17.09.97)</td><td>US</td></tr><tr><td>PCT/US97/16618</td><td>17 September 1997 (17.09.97)</td><td>US</td></tr><tr><td>PCT/US97/16619</td><td>17 September 1997 (17.09.97)</td><td>US</td></tr><tr><td>PCT/US97/16615</td><td>17 September 1997 (17.09.97)</td><td>US</td></tr></table> <p>(71) Applicant (for all designated States except US): <b>THE PROCTER &amp; GAMBLE COMPANY [US/US]; One Procter &amp; Gamble Plaza, Cincinnati, OH 45202 (US).</b></p> <p>(72) Inventors; and</p> <p>(75) Inventors/Applicants (for US only): <b>MITSUMATSU, Arata [JP/JP]; 6-16-306, Midorigaoka-cho, Ashiya-shi, Hyogo 659 (JP). LUO, Xiaochun [JP/JP]; 5-15-703, Koyo-cho Naka, Higashinada-ku, Kobe 658 (JP). UCHIYAMA, Hiro-taka [JP/JP]; 5-8-17-3B, Nishi-Okamoto, Higashinada-ku, Kobe 658 (JP). SETSER, Julia, Leet [US/JP]; 2101, 5-15, Koyo-cho Naka, Higashinada-ku, Kobe 658 (JP).</b></p>		PCT/US97/16412	17 September 1997 (17.09.97)	US	PCT/US97/16617	17 September 1997 (17.09.97)	US	PCT/US97/16618	17 September 1997 (17.09.97)	US	PCT/US97/16619	17 September 1997 (17.09.97)	US	PCT/US97/16615	17 September 1997 (17.09.97)	US	<p>(74) Agents: <b>REED, T., David et al.; The Procter &amp; Gamble Company, 5299 Spring Grove Avenue, Cincinnati, OH 45217-1087 (US).</b></p> <p>(81) Designated States: <b>AL, AM, AT, AT (Utility model), AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, CZ (Utility model), DE, DE (Utility model), DK, DK (Utility model), EE, EE (Utility model), ES, FI, FI (Utility model), GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, R.O, RU, SD, SE, SG, SI, SK, SK (Utility model), SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).</b></p> <p><b>Published</b> <i>With international search report.</i></p> <p>(88) Date of publication of the international search report: <b>12 August 1999 (12.08.99)</b></p>
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<p>(54) Title: <b>HAIR CARE COMPOSITIONS COMPRISING OPTICAL BRIGHTENERS AND HAIR CONDITIONING AGENTS</b></p> <p>(57) Abstract</p> <p>Disclosed are hair care compositions comprising: (a) an effective amount of an optical brightener; and (b) a hair conditioning agent selected from the group consisting of silicone compounds, cationic compounds, high melting point compounds, perfume compounds, water-insoluble high molecular weight oily compounds, and mixtures thereof.</p>																	

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# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/IB 98/01381

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 6 A61K7/06 A61K7/13

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 6 A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 94 06409 A (COLGATE PALMOLIVE CO) 31 March 1994 see examples 1,2 ---	1-3,6,7, 11,13
X	EP 0 717 978 A (CURTIS HELENE IND INC) 26 June 1996 see page 21, line 1-50; claims 1,13,35; examples 35,72 ---	1-4,6-8, 10-13
X	GB 2 307 639 A (GEN ELECTRIC) 4 June 1997 cited in the application see page 8, line 3 - page 9, line 14; claims ---	1,6,7, 11-13
P,X	EP 0 834 303 A (KAO CORP) 8 April 1998 see examples 9,13 --- -/-	1,6,7, 11-13

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

1 February 1999

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# INTERNATIONAL SEARCH REPORT

International Application No

PCT/IB 98/01381

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 733 355 A (KAO CORP) 25 September 1996 see example 2 ---	1,6,7, 11-13
X	GB 1 328 108 A (UNILEVER LTD) 30 August 1973 cited in the application see page 1, line 65-92; claim 6 ---	1,6,7, 11,12
X	US 3 658 985 A (OLSON FRANK WESLEY JR ET AL) 25 April 1972 cited in the application see page 1, column 1, line 63 - page 1, column 2, line 27; examples 3-5 ---	1-3,11, 12
X	CA 1 255 603 A (COSMEPRO INC LAB) 13 June 1989 cited in the application see page 3, line 13 - page 4, line 9; claim 12 ---	1
X	US 4 312 855 A (GRAND PAUL S) 26 January 1982 cited in the application see column 5, line 45 - column 7, line 2 see claims 1-4,9; example 11 * see column 17: Table III * ---	1
A	EP 0 336 709 A (DOW CORNING) 11 October 1989 see claims 2,5,20-22 ---	2
A	DE 26 32 810 A (HENKEL KGAA) 26 January 1978 see examples -----	2

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/IB 98/ 01381

### Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

### Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1 partial, 2-13 complete

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Subject	claims	Description
1	1 part 2-13 complete	A hair care composition comprising a) an effective amount of an optical brightener. b) a silicon compound
2	1 part 14-19 complete	As far as not comprised in invention 1 a) an effective amount of an optical brightener. b) a deterative surfactant. c) a silicon compound
3	1 part 20-26 complete	As far as not comprised in inv 1-2 a) an effective amount of an optical brightener. b) a cationic compound.
4	1 part 27-34 complete	As far as not comprised in inv 1-3 A hair care composition comprising a) an effective amount of an optical brightener. b) a high melting point compound.
5	1 part 35-42 compl	As far as not comprised in inv 1-4 A hair care composition comprising a) an effective amount of an optical brightener. b) a perfume compound.
6	1 part 43-49 compl	As far as not comprised in inv 1-5 a) an effective amount of an optical brightener. b) a water-insoluble high molecular weight oily compound

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IB 98/01381

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